#### § 108.425

- (c) No outlet on a fire hydrant may point above the horizontal.
- (d) Each fire hydrant must have at least one spanner and at least one fire hose rack or reel.

## §108.425 Fire hoses and associated equipment.

- (a) Each length of fire hose in a fire main system must be—
- (1) Of  $1\frac{1}{2}$  or  $2\frac{1}{2}$  inch nominal hose size diameter;
- (2) Of 50 foot nominal hose size length; and
- (3) Lined commercial fire hose that meets Standard 19 of the Underwriters' Laboratories, Inc., (1971 edition) or Federal Specification ZZ-H-451f.
  - (b) Each fire hose coupling must-
- (1) Be made of brass, bronze, or material that has corrosion resistant properties at least equal to those of brass or bronze; and
- (2) Have 9 National Standard Firehose Coupling (NSFC) threads per inch for  $1\frac{1}{2}$  inch hose or  $7\frac{1}{2}$  NSFC threads per inch for  $2\frac{1}{2}$  inch hose.
- (c) Each nozzle for a firehose in a fire main system must be a combination solid stream and water spray firehose nozzle that is approve under subpart 162.027. Combination solid stream and water spray nozzles previously approved under subpart 162.027 of this chapter may be retained so long as they are maintained in good condition to the satisfaction of the Officer in Charge, Marine Inspection.
- (d) A combination solid stream and water spray firehose nozzle previously approved under subpart 162.027 of this chapter, must have a low-velocity water spray applicator also previously approved under subpart 162.027 of this chapter when installed in—
- (1) Machinery spaces containing oil fired boilers, internal combustion machinery or oil fuel units; and
  - (2) Helicopter decks.

[CGD 73-251, 43 FR 56808, Dec. 4, 1978, as amended by CGD 95-027, 61 FR 26008, May 23, 1996]

### § 108.427 International shore connection.

A fire main system on a unit in international service must have—

(a) At least one international shore connection that meets ASTM F-1121.

- (b) A cutoff valve and check valve for each connection; and
- (c) Facilities available enabling the connection to be used on either side of the unit.

[CGD 73-251, 43 FR 56808, Dec. 4, 1978, as amended by CGD 88-032, 56 FR 35826, July 29, 1991]

#### §108.429 Fire main system protection.

- (a) Each pipe and fire hydrant in a fire main system must be installed to the extent practicable in locations that are not exposed to damage by materials that are moved on or onto the deck.
- (b) Each part of the fire main system located on an exposed deck must either be protected against freezing or be fitted with cutout valves and drain valves to shut off and drain the entire exposed system in freezing weather.

FIXED CARBON DIOXIDE FIRE EXTINGUISHING SYSTEMS

## § 108.431 Carbon dioxide systems: General.

- (a) Sections 108.431 through 108.457 apply to high pressure carbon dioxide fire extinguishing systems.
- (b) Low pressure systems, that is, those in which the carbon dioxide is stored in liquid form at low temperature, must be approved by the Commandant.
- (c) Each carbon dioxide system cylinder must be fabricated, tested, and marked in accordance with §§ 147.60 and 147.65 of this chapter.

[CGD 73-251, 43 FR 56808, Dec. 4, 1978, as amended by CGD 84-044, 53 FR 7749, Mar. 10, 1988]

#### §108.433 Quantity of CO<sub>2</sub>: General.

Each  $CO_2$  system must have enough gas to meet the quantity requirements of §108.439 for the space requiring the greatest amount of  $CO_2$ .

# §108.435 CO<sub>2</sub> for enclosed ventilation systems for rotating electrical equipment.

(a) The number of pounds of  $CO_2$  required for the initial charge to protect enclosed ventilation systems for rotating electrical equipment must be equal to the gross volume measured in cubic feet of the system divided by—